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Full text available: pdf(515.95 KB) Additional Information: full citation, abstract, references, index terms

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2 Morphology & tagging: Probabilistic tagging with feature structures

André Kempe

August 1994 **Proceedings of the 15th conference on Computational linguistics - Volume 1**

Full text available: pdf(386.90 KB) Additional Information: full citation, abstract, references

The described tagger is based on a hidden Markov model and uses tags composed of features such as part-of-speech, gender, etc. The contextual probability of a tag (state transition probaility) is deduced from the contextual probabilities of its feature-value-pairs.This approach is advantageous when the available training corpus is small and the tag set large, which can be the case with morphologically rich languages.

3 Delay jitter first-order and second-order statistical functions of general traffic on high-speed multimedia networks

Cathy A. Fulton, San-qi Li

April 1998 **IEEE/ACM Transactions on Networking (TON)**, Volume 6 Issue 2

Full text available: pdf(469.42 KB) Additional Information: full citation, references, citings, index terms

Keywords: QBD analysis, autocorrelation function, cell delay variation, jitter, multimedia, probability density function

4 Co-occurrences of antonymous adjectives and their contexts

John S. Justeson, Slava M. Katz

March 1991 **Computational Linguistics**, Volume 17 Issue 1

Full text available: pdf(1.47 MB) Additional Information: full citation, abstract, references

Publisher Site

Charles and Miller propose that lexical associations between antonymous adjectives are formed via their co-occurences within the same sentence (the *co-occurrence hypothesis*), rather than via their syntatic substitutability (the *substitutability hypothesis*), and that such co-occurrences must take place more often than expected by chance. This paper provides empirical support for the co-occurrence hypothesis in a corpus analysis of all high-frequency adjectives and their antonyms and ...

5 Recovery protocols for shared memory database systems

Lory D. Molesky, Krithi Ramamritham

May 1995 **ACM SIGMOD Record , Proceedings of the 1995 ACM SIGMOD international conference on Management of data**, Volume 24 Issue 2

Full text available: pdf(1.95 MB) Additional Information: full citation, abstract, references, index terms

Significant performance advantages can be gained by implementing a database system on a cache-coherent shared memory multiprocessor. However, problems arise when failures occur. A single node (where a *node* refers to a processor/memory pair) crash may require a reboot of the entire shared memory system. Fortunately, shared memory multiprocessors that isolate individual node failures are currently being developed. Even with these, because of the side effects of the cache coherency protocol, ...

6 Estimating lexical priors for low-frequency morphologically ambiguous forms

Harald Baayen, Richard Sproat

June 1996 **Computational Linguistics**, Volume 22 Issue 2

Full text available: pdf(848.85 KB) Publisher Site Additional Information: full citation, abstract, references

Given a form that is previously unseen in a sufficiently large training corpus, and that is morphologically *n*-ways ambiguous (serves *n* different lexical functions) what is the best estimator for the lexical prior probabilities for the various functions of the form? We argue that the best estimator is provided by computing the relative frequencies of the various functions among the *hapax legomena*---the forms that occur exactly once in a corpus; in particular, a hapax-based es ...

7 Automatic verb classification based on statistical distributions of argument structure

Paola Merlo, Suzanne Stevenson

September 2001 **Computational Linguistics**, Volume 27 Issue 3

Full text available: pdf(2.84 MB) Publisher Site Additional Information: full citation, abstract, references

Automatic acquisition of lexical knowledge is critical to a wide range of natural language processing tasks. Especially important is knowledge about verbs, which are the primary source of relational information in a sentence---the predicate-argument structure that relates an action or state to its participants (i.e., who did what to whom). In this work, we report on supervised learning experiments to automatically classify three major types of English verbs, based on their argument structure--sp ...

8 Poster Sessions: Hierarchical clustering of words

Akira Ushioda

August 1996 **Proceedings of the 16th conference on Computational linguistics - Volume 2**

Full text available: pdf(375.84 KB) Additional Information: full citation, abstract, references

This paper describes a data-driven method for hierarchical clustering of words in which a large vocabulary of English words is clustered bottom-up, with respect to corpora ranging in size from 5 to 50 million words, using a *greedy* algorithm that tries to minimize average

loss of mutual information of adjacent classes. The resulting hierarchical clusters of words are then naturally transformed to a bit-string representation of (i.e. *word bilts* for) all the words in the vocabulary. I ...

9 Empirical studies of discourse representations for natural language interfaces
Nils Dahlbäck, Arne Jönsson
April 1989 **Proceedings of the fourth conference on European chapter of the Association for Computational Linguistics**
Full text available: pdf(861.82 KB) Publisher Site Additional Information: full citation, abstract, references

We present the results from a series of experiments aimed at uncovering the discourse structure of man-machine communication in natural language (*Wizard of Oz* experiments). The results suggest the existence of different classes of dialogue situations, requiring computational discourse representations of various complexity. Important factors seem to be the number of different permissible tasks in the system and to what extent the system takes initiative in the dialogue. We also analyse ind ...

10 Technique for automatically correcting words in text
Karen Kukich
December 1992 **ACM Computing Surveys (CSUR)**, Volume 24 Issue 4
Full text available: pdf(6.23 MB) Additional Information: full citation, abstract, references, citings, index terms, review

Research aimed at correcting words in text has focused on three progressively more difficult problems:(1) nonword error detection; (2) isolated-word error correction; and (3) context-dependent work correction. In response to the first problem, efficient pattern-matching and n-gram analysis techniques have been developed for detecting strings that do not appear in a given word list. In response to the second problem, a variety of general and application-specific spelling cor ...

Keywords: n-gram analysis, Optical Character Recognition (OCR), context-dependent spelling correction, grammar checking, natural-language-processing models, neural net classifiers, spell checking, spelling error detection, spelling error patterns, statistical-language models, word recognition and correction

11 Automatic generation of concise summaries of spoken dialogues in unrestricted domains
Klaus Zechner
September 2001 **Proceedings of the 24th annual international ACM SIGIR conference on Research and development in information retrieval**
Full text available: pdf(209.67 KB) Additional Information: full citation, abstract, references, index terms

Automatic summarization of open domain spoken dialogues is a new research area. This paper introduces the task, the challenges involved, and presents an approach to obtain automatic extract summaries for multi-party dialogues of four different genres, without any restriction on domain. We address the following issues which are intrinsic to spoken dialogue summarization and typically can be ignored when summarizing written text such as newswire data: (i) detection and removal of speech disfl ...

12 Generalizing case frames using a thesaurus and the MDL principle
Hang Li, Naoki Abe
June 1998 **Computational Linguistics**, Volume 24 Issue 2
Full text available: pdf(1.74 MB) Additional Information: full citation, abstract, references

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A new method for automatically acquiring case frame patterns from large corpora is proposed. In particular, the problem of generalizing values of a case frame slot for a verb is viewed as that of estimating a conditional probability distribution over a partition of words, and a new generalization method based on the Minimum Description Length (MDL) principle is proposed. In order to assist with efficiency, the proposed method makes use of an existing thesaurus and restricts its attention to thos ...

13 MURAX: a robust linguistic approach for question answering using an on-line encyclopedia

Julian Kupiec

July 1993 **Proceedings of the 16th annual international ACM SIGIR conference on Research and development in information retrieval**

Full text available: pdf(971.95 KB) Additional Information: full citation, abstract, references, citings, index terms

Robust linguistic methods are applied to the task of answering closed-class questions using a corpus of natural language. The methods are illustrated in a broad domain: answering general-knowledge questions using an on-line encyclopedia. A closed-class question is a question stated in natural language, which assumes some definite answer typified by a noun phrase rather than a procedural answer. The methods hypothesize noun phrases that are likely to be the answer, and present the ...

14 Late-breaking results: new methapors for user interfaces: Swept-frequency, magnetically-coupled resonant tags for realtime, continuous, multiparameter control

Joseph Paradiso, Kai Yuh Hsiao

May 1999 **CHI '99 extended abstracts on Human factors in computing systems**

Full text available: pdf(368.38 KB) Additional Information: full citation, abstract, references, citings

We have developed a passive tag reader optimized for applications in human-computer interaction. It sweeps through a 50-300 kHz read frequency, flagging any magnetically-coupled resonators in that range. It is a minimally-complicated circuit, and is able to provide the center frequency, resonance width, and amplitude for each detected tag over a serial line at 30 Hz continuous updates. The tags are easily fashioned, consisting only of an inductor and capacitor or magnetostrictor tag cut to appro ...

Keywords: RFID, finger tracking, musical interfaces, passive tags, proximity sensing, wireless sensing

15 Translation of web queries using anchor text mining

Wen-Hsiang Lu, Lee-Feng Chien, Hsi-Jian Lee

June 2002 **ACM Transactions on Asian Language Information Processing (TALIP)**, Volume 1 Issue 2

Full text available: pdf(290.79 KB) Additional Information: full citation, abstract, references, index terms

This article presents an approach to automatically extracting translations of Web query terms through mining of Web anchor texts and link structures. One of the existing difficulties in cross-language information retrieval (CLIR) and Web search is the lack of appropriate translations of new terminology and proper names. The proposed approach successfully exploits the anchor-text resources and reduces the existing difficulties of query term translation. Many query terms that cannot be obtained in ...

Keywords: anchor text mining, comparable corpora, cross-language information retrieval, machine translation, parallel corpora, web mining

16 Software for Reconfigurable Systems: Performance-constrained pipelining of software loops onto reconfigurable hardware

Greg Snider

February 2002 **Proceedings of the 2002 ACM/SIGDA tenth international symposium on Field-programmable gate arrays**

Full text available: pdf(206.27 KB) Additional Information: full citation, abstract, references, citings

Retiming and slowdown are algorithms that can be used to pipeline synchronous circuits. *Iterative modulo scheduling* is an algorithm for software pipelining in the presence of resource constraints. Integrating the best features of both yields a pipelining algorithm, *retimed modulo scheduling*, that can more effectively exploit the idiosyncrasies of reconfigurable hardware. It also fits naturally into a design space exploration process to trade-off speed for power, energy or ar ...

17 Development and application of NASA's first standard spacecraft computer

Charles E. Trevathan, Thomas D. Taylor, Raymond G. Hartenstein, Ann C. Merwarth, William N. Stewart

September 1984 **Communications of the ACM**, Volume 27 Issue 9

Full text available: pdf(1.26 MB) Additional Information: full citation, abstract, citings, index terms

To provide the autonomy needed by low, earth-orbiting satellites, NASA's first standard on-board processor requires changing only interfacing hardware from mission to mission.

Keywords: PASS, avionics system

18 Precomputed radiance transfer for real-time rendering in dynamic, low-frequency lighting environments

Peter-Pike Sloan, Jan Kautz, John Snyder

July 2002 **ACM Transactions on Graphics (TOG) , Proceedings of the 29th annual conference on Computer graphics and interactive techniques**, Volume 21 Issue 3

Full text available: pdf(5.37 MB) Additional Information: full citation, abstract, references, citings, index terms

We present a new, real-time method for rendering diffuse and glossy objects in low-frequency lighting environments that captures soft shadows, interreflections, and caustics. As a preprocess, a novel global transport simulator creates functions over the object's surface representing transfer of arbitrary, low-frequency incident lighting into *transferred radiance* which includes global effects like shadows and interreflections from the object onto itself. At run-time, these transfer functio ...

Keywords: Monte Carlo techniques, graphics hardware, illumination, rendering, shadow algorithms

19 TOPIC ISLANDS—a wavelet-based text visualization system

Nancy E. Miller, Pak Chung Wong, Mary Brewster, Harlan Foote

October 1998 **Proceedings of the conference on Visualization '98**

Full text available: pdf(1.98 MB) Publisher Site Additional Information: full citation, references, citings, index terms

Keywords: information retrieval, information visualization, text visualization, wavelet transform

20 An evaluation of phrasal and clustered representations on a text categorization task
David D. Lewis
June 1992 **Proceedings of the 15th annual international ACM SIGIR conference on Research and development in information retrieval**

Full text available: pdf(1.22 MB) Additional Information: full citation, abstract, references, citings, index terms

Syntactic phrase indexing and term clustering have been widely explored as text representation techniques for text retrieval. In this paper we study the properties of phrasal and clustered indexing languages on a text categorization task, enabling us to study their properties in isolation from query interpretation issues. We show that optimal effectiveness occurs when using only a small proportion of the indexing terms available, and that effectiveness peaks at a higher feature set size and ...

Results 1 - 20 of 52 Result page: **1** 2 3 next

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